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The sensory experiencing of urban design: the role of walking and perceptual memory

Abstract

Experience is conceptualized in both academic and policy circles as a more-or-less direct effect of the design of the built environment. Drawing on an investigation of people's everyday experiences of designed urban environments in two UK towns, this paper suggests two reasons why urban sensory encounters cannot be understood entirely as a consequence of the design features of those environments. Drawing on the empirical analysis of surveys and 'walk-alongs', we argue that distinct senses of place do depend on the sensory experiencing of built environments. However, that experiencing is significantly mediated in two ways: first, by bodily mobility, in particular, by walking practices: and second, by perceptual memories that mediate the present moment of experience in various ways. In conclusion, we argue that work on sensory urban experiencing needs to address more fully the diversity and paradoxes produced by different forms of mobility through, and perceptual memories of, built environments.

key words: experience, architecture, sensory, mobility, walking
perceptual memory

Introduction: urban regeneration and sensory experience

Western urban policy and academic debate has been dominated in recent years by the implementation and impact of urban design and regeneration strategies. Particular to the British 'urban renaissance' agenda, for example, has been a deliberate government emphasis on "design excellence" within regeneration projects (Urban Task Force, 1999), and an implicit assumption that such design directly affects people's experiences of place: "good design can help create lively places with a distinctive character; streets and public spaces that are safe, accessible, pleasant to use and human scale; and places that inspire because of the imagination and sensitivity of their designers" (DETR/CABE, 2000, p. 8). As importantly, many academic commentators also assume that transformations in the urban built environment not only reflect wider structural political, economic, cultural and governmental changes but also profoundly alter the everyday experience of urban space (Lefebvre, 1991; Hall and Hubbard, 1998; Degen, 2008; Brenner and Theodore, 2002; Cronin and Hetherington, 2008).

The specific changes in people's experience sought by urban designers and policymakers are various: one persistent hoped-for effect is a reduction in street crime, for example. In this paper, we focus on another intended effect, which is the sensory experiencing of urban

environments. Recent years have seen an upsurge of research on the senses, leading to what Howes (2006) has described a 'sensory revolution' in the social sciences. It is now commonplace to remark that the senses are part of people's everyday experiencing (recent discussions include Mason & Davies 2009; Kalekin-Fishman and Low 2010; Degen, 2008). It has also been clearly established that sensory experiences are central to the design of urban built environments. Academic writing on the design of post-industrial urban change has focussed from its earliest texts on the impact of the *visual* form of urban regeneration projects, for example (Harvey, 1990; Boyer, 1988). In a fiercely competitive global economy, city landscapes are increasingly under pressure to perform as marketable commodities, as 'brandsapes' judged "by [their] ability to transform the sensation of the subject" (Klingman, 2007, p. 6). This has led critics emphasize the 'spectacularization' of how the urban environment is seen (Boyer, 1988; Hannigan, 1998; Cronin and Hetherington, 2008; Klingman, 2007; Lehtovuuri, 2010). Critics also claim that the emphasis on marketing and branding cities leads inevitably to a slew of visually similar places – "cloned, banal, branded landscapes have typically been a product of new central city malls and regenerated spaces" (Tallon, 2010, p. 20) – that rarely engage the people who move through them (Lehtovuuri, 2010, p. 103).

The research project on which this paper is based aimed from the start to investigate people's sensory engagement with designed

urban environments. Its analytical starting point was Highmore's (2009) "social aesthetic perspective". Inspired by Georg Simmel's writings, this refers to an analysis of "the sensual material life of objects, and the subjects that interact with them. [... and] with the way the sensual world greets the sensorial body and with the affective forces that are generated in such meetings" (2009, p. 10).

Acknowledging the 'sensual material life of objects' underpinned the choice of two case study towns with distinct urban environments; and a concern for 'subjects and sensorial bodies' drove a mostly qualitative research methodology focussed on exploring how people sensorily experienced those two towns. The project took this approach in its study of two towns in south-east England: Milton Keynes and Bedford. Both towns are using design as a catalyst for changing the ambience of their city centres, yet they are also radically different in that Bedford is an old historic town while Milton Keynes is a modernist 'new town'.

The aim of this article is both to demonstrate empirically a 'social aesthetic perspective' and analytically to expand, it by examining the relationships between sensory experience and the shifting mobilities and temporalities of everyday urban experience. We are particularly concerned to explore how these relationships create a particular sense of place or, as Feld has put it, how "feelingful sensuality participate[s] in naturalising one's sense of place" (2005:179).

The project was also driven by a conviction that most accounts of sensory urban experiencing neglect three key features. First, they

neglect to investigate the immediate, in-situ corporeal *experience* of the multiple urban dwellers of these spaces on a day-to-day basis (exceptions include Degen, 2008; Rose, Degen and DeSilvey, 2008; Law 2005, 2001; Adams et al., 2007). Although some research has focused on the ways in which regeneration policies impact on the lives of socially excluded groups (see Gosling, 2008; Wilson and Grammenos, 2005), almost no attention has been given to how built environments engage their users, nor to the diverse felt experiences that such environments might elicit. Yet, as Law reminds us, “the street looks and feels differently depending on the perspectives of those inhabiting urban spaces” (2005, p. 440). Secondly, while research on contemporary urban change has focused on attempts by local authorities, planners and developers to create a new *visual* order through the conscious stylization of urban space, such studies neglect to attend how the city is experienced through *multiple* sensory modalities, not just the visual. Thirdly, our research suggests that work on sensory urban environments needs to consider another aspect of those sensory encounters, namely how sensory perception is *mediated* by different and shifting spatial and temporal practices. Here we will suggest that there are two ways that sensory encounters are shifted and altered: by particular practices of spatial mobility; and by memories of previous visits to the same or similar places .

This paper thus contributes to an emerging body of work which aims to explore how the embodied inhabitation of urban spaces feels

(Lefebvre, 1991; Tuan, 1977; Allen, 2006; Degen, 2008; Edensor, 2005; Frers and Meier, 2007; Grant, 2009; Lehtovuori, 2010; Sidaway, 2009). It depends on fieldwork in the two towns of Milton Keynes and Bedford, and the first section of the paper is a brief introduction to the towns and to their planners' focus on creating specific sensory effects, based on interviews undertaken with those planners. The second section summarises our methodology. The third section of this paper then describes the distinct sensory engagements with the town centres of Bedford and Milton Keynes by their regular users. The last section of this paper explores how memories intertwine with sensory experiences, and can mediate those experiences in various ways. The conclusion suggests the consequences of this argument for sensory approaches to urban space.

Sensory experience and urban design in Bedford and Milton Keynes

In 2003, both Milton Keynes and Bedford were designated by the UK government as Growth Areas, which has led to an intensification of design regeneration projects in both city centres. In this section we briefly outline the main strategies that have been shaping both town centres in recent years, and the planners and designers expectations' of their effects.

Milton Keynes was designed in the late 1960s as a new town and currently has a population of 230,000. Its city centre has at its core a large modernist building, opened in 1979 and designed as a covered high street. Originally conceived as a public space open to the surrounding streets (Walker, 1994), the building was handed over to private ownership in the early 1990s, and is now closer to a shopping mall than a public high street. It was joined at its western end in 2000 by an extension designed in a more postmodern style. In 1999 the Central Milton Keynes Review decided that the 1970s development plan for Milton Keynes needed to be overhauled in light of the urban growth schemes spearheaded by the Labour government, and a new Central Milton Keynes Development Framework was adopted in 2002. According to one design and planning manager, the Framework is regarded as a tool to make the city centre more attractive to more people by changing its 'feel':

“One of the main criticisms of Central Milton Keynes was that it did not feel like a city centre, that it felt like a business park. You had a series of separate uses dispersed around a large geographical area... So, the principles of the Development Framework are ... to make it feel much more vibrant and mix up the uses more.” (SW, English Partnership/MK Partnership Design and Planning Manager)

We can see here how the design of the urban centre is conceived as a socio-spatial management tool to bring into being a new experiential landscape (Madanipour, 1996). Design strategies are regarded as directly affecting the feel and atmosphere of Milton Keynes centre; as a Principal Urban Designer told us, “design should enrich people’s experiences”.

In contrast to Milton Keynes, Bedford is an historic market town, with a popular market and a small covered shopping centre around a traditional high street. Over the last decade Bedford Borough Council has been involved in an extensive redevelopment programme of the town’s centre. Much of the town centre was pedestrianised in the 1980s; over the past decade, it has undergone an environmental improvement scheme which has involved the installation of raised flowerbeds, a small sculpture playground for children, a number of sculptural play installations, and some modern street furniture, as well as the redesign of several public spaces such as a run-down square which had a large fountain installed. Here too, design is regarded as a catalyst to attract both new businesses and new users to the town centre: “we want people to come and spend more time and more money. ... As a designer you are trying to make things more attractive...If you improve the vibrancy certainly commercially of the town centre, it gives people more choice of what they can do here” (PN, Bedford Design Group). Such views highlight the increasing importance of the

experience economy to contemporary cities, confirming that “atmosphere, character, and sensorial qualities are becoming key factors in the definition of place, even from an economic perspective” (Zardini, 2008, p. 24). These design strategies in Bedford were summarised precisely as aiming for a new sensory feel to the town centre; another interviewee said that the centre currently feels “a bit like sandpaper, rough and ready”, whereas he wanted to transform it into “a very fine sandpaper where you’ve got a very smooth, elegant feel to the place. [So we need to] transform it from a very tired town in many places to one which oozes elegance and quality and that will then be reflected in the value of spend, the footfall and the success at the end of the day of the town centre” (TR, Chairman of Bedford BID).

From the discussion so far, then, we can see that urban design practice in places like Milton Keynes and Bedford assume that the everyday human experiencing of the built environment is shaped to a significant degree by the physical qualities of that design. This is also the assumption held by the urban design literature: that the design of buildings, and the spaces between buildings, have a significant influence upon, even if they do not entirely determine, the human experience of the built environment (Carmona, 2009; Dovey, 1999; Madanipour, 1996). Now, while it is important to note again that this is not the only aim of excellent urban design, this paper now turns to exploring how these redesigned urban centres sensorially engage the users of those places.

Methods: surveys and walk-alongs

In examining how people experienced the centres of Bedford and Milton Keynes, a range of methods were used. Three are core to this paper. Firstly, to access the general 'sense of place' of both locations, we conducted a survey of 397 people in Bedford and 384 in Milton Keynes over the course of a week. Participants were chosen at random within the shopping centre or high street. The aim was to find out why they were visiting the town centres, what they were doing there and how they perceived them. Five questions were asked:

1. Why are you here today?
2. Do you come here often?
3. Do you like this part of Milton Keynes town centre / Bedford town centre?
4. Is there anything you really like or really hate about the Milton Keynes Shopping Centre / Bedford town centre?
5. If you had to describe this place which three words would you use?

To access the individual and immediate experiencing of these two places, we developed the 'walk-along' method, amalgamating Kusenbach's (2003) go-along method with a photo-elicitation interview a week after the walk (see also Latham 2003; Mason & Davies 2009). The walk-along consisted of the researcher accompanying individuals

(sometimes with families and friends) in a routine walk through the town centre. Participants were briefed beforehand that we wanted to accompany them on an ordinary walk while doing their daily chores and that they should comment on anything they found noteworthy in their use of the town. The length of the walk-alongs varied according to the activities pursued: sometimes a hurried 30 minutes with an individual rushing in their lunch break to buy a gift, at other times several hours with a family doing their errands and having coffee breaks. We recorded the conversations during the walk-along and occasionally prompted the participant to comment on specific features of the environment, focusing on newly incorporated design details such as pieces of public art, street furniture, or a new water feature. We also asked participants to take photographs of things that particularly struck them on our walk. These photographs were used as a basis for a follow-up interview in which participants reflected on their experience of the walk and on the town centres more generally. The aim of such elicitation was to grant “autonomy to the interviewee to direct research encounters, enabling their own personal experience and frameworks of meaning to be prioritised” (Keightley 2010, p. 61). Like Mason and Davies (2009), we found that the photographs were useful tool for evoking evocative discussions about sensory experiences because the visual appearance captured by the photographs was inadequate for capturing the ‘feel’ of place; the photographs thus generated rich talk and our analysis focussed on that talk. We conducted 'walk-alongs' with

17 people (13 walk-alongs) in Bedford and 16 people (12 walk-alongs) in Milton Keynes. Lastly, to explore whether and how individuals notice changes in the built environment, we conducted a smaller survey of around 60 people in each town, asking them their views on a dying oak tree in Milton Keynes centre and the renovation of a square in Bedford (see also Rose et al., 2010). The paper will draw on all these sources as it now interprets how the two towns are sensorily experienced.

Experiencing Bedford and Milton Keynes I: the importance of walking

A focus on sensory experience in the city is not new. Indeed, already at the start of the twentieth century, writers such as Georg Simmel and Walter Benjamin emphasised the importance of a sensory approach for understanding the novel experience of life in the rapidly changing environment of the modern city (Simmel 1971, 1997 [1907]; Benjamin 1997). Humanistic geographers (such as Buttner & Seamon 1980; Relph 1976; Tuan, 1977; Rodaway, 1994), interrogated further the ways in which places obtain sensory as well as cultural meanings for humans. And there is no question that Bedford and Milton Keynes are experienced through the senses. This was evident in the surveys, the walk-alongs and the photo-elicitation interviews, where participants repeatedly commented on the colours, texture, sounds, temperature and smells of the two town centres. Milton Keynes town centre was

uniform, grey/ivory, hot and angular, punctuated in specific places with bird song and the smell of doughnuts and soap; one walk-along participant said being there was "like stroking a tile". Bedford, meanwhile, was brown, a bit tatty, and smelt of hamburgers, and was more "like brushing your hand over a brick, not smooth at all", according to another participant. In this section, we explore how it is not only the material qualities of the towns' built environment that create such different senses of place, but also the embodied practices through which people encounter that environment: specifically, walking.

Tuan's (1977) work on place and sensory experience emphasises the importance of repeated and routine engagements with places. It is through such habitual practices, he argues, that we attach particular experiences and memories to places. It is through the daily smelling, touching, seeing, hearing and tasting that places become known to us, familiar. The senses, for Tuan (1977, p. 11), "constantly reinforce each other to provide the intricately ordered and emotion charged world in which we live". However, that familiarity was, in the case of Bedford and Milton Keynes, shaped not only by the very different built environments of the two places – the "material sensuality" which greets people there, to quote Highmore (2009) again – but also by the different kinds of walking that happened in each place. Questions of movement and mobility have increasingly come to the fore within social sciences in recent years, and methodologically, 'walking'

has become a way to understand how all "the senses are integrated by the way the living body moves" (Lund, 2006, p. 41; see also Ingold, 2000, 2004; Wylie, 2005; Cresswell, 2010; Middleton, 2010). Walking, as De Certeau (1984) observed, is an everyday practice through which urban space is made. Comparing walk-alongs in Bedford and Milton Keynes, it became evident that different ways of walking integrate quite distinct sensory impressions.

In Milton Keynes, there is:

"a tendency for it to be like a two way street. You find people walking in synch with each other, so if you want to go across it's really hard...It kind of forces people to do this back and forth walking thing, and you kind of end up forming ... streams of traffic" (Susan).

Thus, participants in Milton Keynes had a tendency to have very routinised patterns of walk, almost being on 'autopilot': "the implication here is that we do not have to think about the way we move through urban space: our body feels its way" (Hubbard 2006, quoted in Middleton 2010:583). Walking in Milton Keynes was described by our research participants as an isolating and lonely experience: a "very useful but often soulless experience, [an] impersonal convenience. You are meeting people that are in a position of a constrained social environment" (Chris), echoing Simmel's (1971) arguments of the

alienating effects of modern urban experience. Most of our participants had a clear mental route mapped out before entering the shopping building as shops are laid out in a standardised way: “you’ve got a particular navigation to walk around. And you’ve got all the maps to tell you where to go, and the maps are categorised by different types of shops” (Mike), which fostered according to one participant a “programmed” and “quick form” of walking. Ironically, precisely due to the sensory uniformity of the environment, the “monotony of the place...it's straight lines and angles” (Samantha), the shopping mall is experienced as confusing; people get lost, and rely on maps for way-finding. The regulated temperature, the constant background music and announcements that go mainly unnoticed, and the controlled lighting, make it feel like “being in a swimming pool...It’s such a concentration of shops and they are all really busy...there’s no kind of break between it...there’s no kind of relief from it” (Stu). One can identify here a relationship not only between the design of the built environment and people's sensory experiences (the space, the light, the repeated architectural elements), but also between the environment, sensory experiences and the way people walk.

In Bedford, in contrast, walking was experienced as slower-paced, less programmed and described in terms of “ambling” and “strolling”. Bedford’s organic street plan and its diverse architecture, which juxtaposes buildings from the 1960s next to art-deco and Tudor buildings, creates disjointed sensory experiences “odd kinds of

contrast” (Burt). Overall, users do not circulate in the city centre in an ordered way but as Tara explains in a “spidery-like movement”; she then elaborates, “chaotically, I back track a lot. I’ll go somewhere, and I think ‘oh I missed that place’ and I shoot back”. Research participants used alleyways, backstreets and passages to move from one area of town to the next. Another walk-along participant elaborates: “we don’t really have a sort of routine, that’s why we tend to walk back and forth...” (Michael). Bedford’s contrasting physical and sensory environment produces a multiplicity of patterns of walk, sometimes quicker, then slower as individuals react to different forms of sensory stimulation around them such as the splashing noise of a fountain, the music from a street busker, the smell of “chips, hot dogs and onions” coming from the burger van which as one respondent told us identified “Bedford as Bedford”. The walk-alongs also revealed distinct sensory mappings for different areas of town. The smells of exotic foods, “the many languages spoken” and its colours make the market “very multicultural”; “then you get like into [the pedestrian area] and you’ve got all the coffee shops, and there are smaller businesses, so you can sort of tell which are part of the town you’re in” (Michael). Bedford illustrates Feld’s description of sensory synesthesia as “constant shifts in sensory figures and grounds, constant potentials for multisensory or cross sensory interactions or correspondences. Figure ground interplays, in which one sense surfaces in the midst of another that recedes, in which positions of dominance and subordination switch or

co-mingle, blur into synesthesia..." (2005, pp. 180-181) in ways that Milton Keynes does not. This specific sensory constellation is again a consequence both of urban materiality and of specific walking practices.

It should be evident by now that the senses are key in assembling and re-assembling distinct senses of place in both town centres in which smell, touch and sound are just as important as what is seen. Sensory assemblages are convened not only by the material affordances of the built environment, however. They are also convened by the specific walking practices that, as De Certeau (1984, p. 97), "give their shape to spaces. They weave places together. In that respect, pedestrian movement forms one of these 'real systems whose existence in fact makes up the city'". In particular, our data demonstrate how specific walking practices are crucial to 'making up' the distinct sensory patterns of different urban environments.

Experiencing Bedford and Milton Keynes II: the importance of perceptual memory

The previous section argued that walking practices mediate the encounter between people and the sensory qualities of built environments. This section turns to another mediator between the senses and the town centres of Bedford and Milton Keynes: memory.

Current work on the sensory experiencing of urban space – as the previous section implies – focuses very much on the moment of experiencing and hence on the unfolding flow of the present. As Frers (2007, p. 29) notes, "taking the perspective of the actors themselves" in this body of work entails "following the permanent and live unfolding of actions and events". This focus on the subjective, experiential and performative present means, first, that engaging with contemporary work on affect is problematic (for discussion see Rose et al., 2010); and secondly that there has been little interest in interrogating the temporality of urban experiencing (Serematkis, 1994, p.7). However, as Halbwachs (1992, 169-9) remarks, following Bergson, "there are... no perceptions without recollections".

Many urban scholars have explored the role of memory in relation to cities, of course. Most of this work, however, has turned away from what has been seen as the individualism of Bergson's thought (Staiger and Steiner, 2009, p.5) to offer interpretive readings of cultural identity as embedded in the symbolism of building and landscape design (Atkinson, 2007; Boyer, 1994; Dwyer, 2004; Forest et al., 2004; Hebbert, 2005; Hanna et al., 2004; Hollscher and Alderman, 2004; Inwood, 2009; Mills, 2010; Rose-Redwood, 2008; Rodger and Herbert, 2007). Some scholars have also explored the uncanny feeling that places are haunted by ghosts of the past (Della Dora, 2006; Edensor, 2005; Pile, 2005; Degen and Hetherington, 2001). Far less attention has been paid to the way what might be called 'everyday', more mundane

memories inflect the experiencing of built environments. Yet as Jones (2003, p. 27) notes:

Memory is 'on' and working all the time, in our bodies, our subconscious, through our emotions. It reconfigures moment by moment who we are and how we function.

Memory is not just a retrieval of the past from the past, it is always a fresh, new creation where memories are retrieved into the conscious realm and something new is created in that context.

In Bedford and Milton Keynes, it was precisely ongoing ordinary, everyday memories that mediated encounters between buildings and individual people. As Keightley (2010, p. 56) points out, memories are not just meanings about the past but are rather "a process of making sense of experience, of constructing and navigating complex temporal narratives and structures and ascribing meaning not only to the past, but to the present and future also". Such retrievals are of various kinds, and while their content certainly varied among our individual research participants, it is nonetheless possible to suggest that ordinary memories have three roles in the experiencing of urban environments in Milton Keynes and Bedford in the present, in each case mediating the sensory into 'something new'.

Memory and multiple encounters

The first way in which memory affects the sensory experiencing of Bedford and Milton Keynes's town centres is when the experiencing of the built environment in the present is overlaid with memories of how that same environment was encountered in the past. In both Bedford and Milton Keynes, research participants had very clear memories of how these towns were once different from their current form, and recalling these memories was a central part of how they experienced the towns now.

This was particularly the case in Bedford. The walk-alongs were especially useful in revealing how important an individual's memories are to their experiencing of the town centre. Sally evoked a shopping street in Bedford fifty years ago as she walked through it one day in 2008, overlaying its current pedestrianisation and chain store shops with a street full of traffic, the big school and a wide range of independent shops, including a "glamorous" department store where elegant ladies in frocks went shopping.. The head of Bedford's Economic and Regeneration department spent most of his walk-along rehearsing his various successes and future plans, but was provoked by a question about Bedford's smells into recalling a powerful memory from "very, very many years ago": "there was a fabulous smell of a traditional coffee shop and the whole town smelt of that aroma". Another walk-along participant told us that he just liked "looking at old buildings and thinking of people using these places in olden times". A

more general sense of how Bedford's town centre has a history carried in the memories of its users was also clear in the survey, which heard many people remarking on aspects of the changed built environment. These included both the disappearance of old buildings and the changed appearance of the ones that remained – Bedford's "faded grandeur", to quote one respondent – and also on the disappearance of independent shops and the dominance of chain stores.

Memories in Milton Keynes reflected the town's much shorter history. One walk-along participant recalled coming up from London to visit the original centre not long after it opened in 1979, while another remembered not being allowed to roller-skate in the centre as a girl. Our survey found that many people recollected how the centre had changed even in its short lifespan: for example, in noting shops that had closed to be replaced by others. Moreover, a desire to have such memories of other landscapes layering the present one was evident in a small survey undertaken by the project in the newer centre, which is built around an oak tree. Early in 2009, the local newspaper announced that the tree seemed to be dying. Our survey asked people what they thought of the oak tree and if it did die, what they would like to see in its place. Of the 60 respondents, 44 replied that they would want another oak tree. The tree was loved partly as a piece of nature among all the "architecture" and "concrete", but also as a reminder of what had been on the site before the shopping centres had been built: "fields" and "heritage".

Memories of how places were once different were thus pervasive in both Bedford and Milton Keynes; indeed, Burt in Bedford anticipated such a role for his memories in the future when he commented that if the ugly bus station in Bedford was ever pulled down and redeveloped, he would miss being able to complain about it: that is, he anticipated a future encounter with a building that depended on the remembered presence of its absent predecessor. This suggests that sensory engagements with place are often mediated by memories of that environment as it used to be, emphasising Anderson and Wylie's (2009) argument that materiality is not simply what is physically present. Buildings, streets and squares may be seen, heard and smelt through memories of what was once there but are no longer – smells, roller-skating, fields, buildings, glamour – so that the sensory experiencing of built environments is not entirely a consequence of the present materiality of those buildings.

Remembering and judging

Many research participants in both places also engaged with these two town centres by remembering other buildings and urban spaces they were familiar with from their past. **The walk-alongs and follow-up interviews consistently produced, unprompted by the researchers, more or less extended comparisons between Bedford and Milton Keynes with other places (and sometimes with each other).** That is, encounters with one town provokes memories of other places. Milton

Keynes was compared to Leeds, Brighton, Bletchley, Birmingham, Barcelona and Osaka, and to Australian and South African shopping malls. Bedford was compared to St Neots, Leicester, Milton Keynes, Cambridge, Northampton, Oxford, Exeter, Salisbury, Watford, Luton, St Albans and Brighton (all medium-sized towns in the UK), as well as Birmingham, London, Lisbon, Munich Los Angeles, Pisa, Washington DC, Spain and Brazil. This sort of comparative habit has also been identified by Amdur and Pliouchtch (2009) in their study of a bus station. Like Amdur and Pliouchtch (2009), this study found that comparisons were made between specific aspects of two places. The comparisons between the South African or Australian shopping malls with Milton Keynes's shopping centre was in both cases in relation to their relative sizes, for example, while Bedford was compared Brighton in terms of how many independent shops each town had.

Importantly, these comparisons were almost always made in the context of a judgement being passed on some aspect of the town centre in Bedford or Milton Keynes. And this is another way in which the sensory encounters with one place were mediated by memories of another. Stu's comparison with Osaka led him to conclude that the shopping centre in Milton Keynes was "bad, very depressing", while Tara's comparison with Brighton was part of a complaint about the lack of independent shops in Milton Keynes which meant she found it a visually uninteresting place to browse around. Bedford, meanwhile, came off badly in comparisons made by some research participants

with, for example, St Ives (greener), Cambridge (more beautiful) and Milton Keynes (more accessible), while others thought it had more character than Milton Keynes.

This then is a second way in which the sensory experiencing of these two town centres is mediated by memory: memories of other places induce judgements about their different sensory qualities. Thus the light, geometry, colour and smoothness of Milton Keynes is felt but also evaluated as bland, modern or sterile – "it's smooth and shiny," said Tara, "and possibly quite sterile because of that" – while the rough textuality of Bedford is evaluated as part of the town's character: "it's made a difference that they've got the bricks on the floor", said Cecile approvingly of part of the pedestrianised area in Bedford's town centre.

Memory dulling 'the town centre' and 'the shopping centre'

The third way in which memory shapes the experiencing of town centres is the remembering of previous visits to these two towns and others, not in order to explore their differences as the previous sub-section discussed, but in order to mark their sameness. The previous sub-section emphasised how memories of visits to other places very often produced some sort of judgement on the case study towns, and that this was often to compare Bedford or Milton Keynes, favourably or unfavourably, to another place. That is, memories of other places quite often emphasised differences between those two towns and others. However, such persistent comparative work by our research

participants also seemed to produce another effect, which was a clear sense of the similarities of Bedford with other town centres, and Milton Keynes with other shopping centres.

Alongside the richly evocative sensory impressions that we obtained during the walk-alongs in particular, repeated visits to the town centres affect encounters with the sensory qualities of the built environment by dulling the intensity of those qualities. All of the participants in the qualitative stages of this project were regular users of the town centres under investigation, and this produced a familiarity with the centres which fundamentally affected their experiencing of them. As one of them said, comparing her initial enthusiasm for the centre when she first arrived in Milton Keynes to her current attitude towards it, "I'm just over it". Similarly, one walk-along participant in Bedford told us that "we are so used to the town... we don't really sort of pay much attention".

The data also evidence a widespread feeling that these two town centres do not evoke any particularly intense experience, sensory or otherwise. This became clear in the large survey. The term most frequently used to describe Milton Keynes was 'nice', which appeared 194 times in the survey. Bedford was also 'nice' – used by 164 respondents – and in Bedford 194 respondents also used the term 'allright' to describe the town centre. Indeed, a common response to our survey questions about the town centres was a faint sense of surprise that anyone should be particularly interested in them, with a

lot of people struggling to find three words that would describe a centre. Moreover, it was evident that most people do not expect either Bedford or Milton Keynes to be especially striking or impressive because the towns are understood as specific kinds of places: Milton Keynes is "just a shopping centre" and Bedford is "just a town centre". "It's not a city, it's just a town", said one survey respondent in Bedford, as if that was all that we needed to know about the place, while a walk-along participant described walking through Bedford town centre as "you just pass it, it's just town" with "standard sorts of buildings". Milton Keynes, meanwhile, was "nothing special, just a bunch of shops", according to one respondent: "it's just a shopping centre, it's ok".

None of these responses suggest intense sensory engagement with these urban spaces; rather, they imply an acknowledgement of a certain generic quality to these town centres. And that generic quality is identified in part, we assume, by memories of visits to other, more-or-less similar places that are also 'town centres' and 'shopping centres'. After all, Milton Keynes may be the most striking shopping centre in the UK architecturally (Jewell, 2001), but in terms of what you actually do there it is no different from all the other shopping centres in the UK and beyond. Similarly, although Bedford has a delightful river embankment and a much-loved family-run hardware store, in other ways it is little different from most other medium-sized market towns in the UK. It's "a town centre, the same as any other town centre", as one of our respondents averred. Memories of other visits to such

places seem to be working, then, not only to mediate sensory encounters by making comparisons between them, but also to develop a typology of places which has the effect of making them less interesting, less engaging, and with less sensory impact.

Once again, then, a particular sort of memory can be seen to be working to inflect sensory encounters with urban spaces. This echoes Bergson's claim that "there is no perception which is not full of memories. With the immediate and present data of our senses, we mingle a thousand details out of our past experience" (Bergson quoted in Stewart, 2005, p. 59). Memories of how places used to be can multiply sensory engagement; memories of other places can entail judgements that can be very negative in relation to a town centre and thus disengage an individual from full sensory immersion in the urban environment; and familiarity with these two spaces can also reduce their sensory feel, particularly when they are understood as particular types of places. In none of these situations do memories engage with what the literature on urban memory would understand as a collective memory implicated in cultural identity; yet their effect is to mediate significantly sensory encounters with the built environments of Milton Keynes and Bedford.

Conclusions

Urban studies scholars and urban policy practitioners agree that, increasingly, the aim of design interventions into urban space is to alter the experience of that space for its human inhabitants. Urban environments are more and more often designed in order to be distinctive, vibrant and beautiful, thus creating – or so the argument goes – memorable sensory experiences for the people who pass through them (Allen, 2006; Klingman, 2007; Lonsway, 2009; Thrift, 2004). This paper has engaged with this argument, firstly, by arguing that urban spaces are indeed experienced with feeling (see also Rose et al., 2010). Even people visiting rather ordinary town centres – like those of Bedford and Milton Keynes – can describe a very rich range of sensory engagements with those places. These encounters are multisensory. Sight, touch, sound and smell in particular are all part of how these towns are experienced. And these experiences of place are vary considerably from one place to another. The smooth marble and glazing of Milton Keynes's shopping centre, for example, provokes feelings of light and smoothness; the varied surface textures of Bedford's buildings encourage people to compare the town to sandpaper. Our research thus confirms what many others scholars have also noted: “material culture is neither stable nor fixed, but inherently transitive, demanding connection and completion by the perceiver” (Seremetakis, 1994, p. 7). Specific forms of built environment afford specific forms of sensory experience.

However, while human sensory experience can be understood as being embedded in material environments, and as provoked by specific aspects of them, urban spaces do not create experiences in a straightforward manner. The case studies discussed here suggest that a more complex analysis is required, for two reasons.

First, the sensory experiencing of Bedford and Milton Keynes was significantly mediated by the specific walking practices that predominate in those two places. Sensory accounts of the city thus have to take account not only of the sensing body, but of how the sensory body is moving through urban space.

Secondly, a certain sort of remembering also mediates the experiencing of urban built environments. In Bedford and Milton Keynes, regular users of the town centres were both highly engaged in and articulate about the sensory qualities of the built environment; yet they were also "over it" to such a degree that they did not notice their surroundings. This paradox of attentive sensory engagement experiences in places simultaneously understood to be at best "nice" can be understood, we would argue, by paying more attention to the working of particular kinds of memory. Serematkis (1994) argues that one of the most important ways that 'the perceiver' creates the 'completion' of a material urban environment is by acts of memory. And, in counterposition to most of the literature on memory in urban places, the paradox of sensory experiencing we are addressing here does not involve collective cultural identity. Rather, our research

participants' experiences of these two places was infused with what Serematkis calls perceptual memory:

“...perceptual memory as a cultural form, is not to be found in the psychic apparatus of a monadic, pre-cultural and ahistorical seer, but is encased and embodied out there in a dispersed surround of created things, surfaces, depths and densities that give back refractions of our own sensory biographies.”

(Seremetakis, 1994, p. 129)

Perceptual memory was at work as our participants walked around Bedford and Milton Keynes, responding to specific created things and surfaces *not only* in terms of those things' and objects' material qualities, but *also* in relation to the participants' own, remembered, sensory biographies. To invert Keightley's (2010, p. 58) claim, remembering is not just "a performance rooted in lived contexts" but is also "an articulation of individual psychologies". Such remembering is a continual process, and produced not only explicit sensory engagements with the two towns, but also the effect of a series of questions for our participants: how was this place different in the past? How is it different from other places I've visited? How is it the same as other places I've been to?

This effect mediates the sensory perception of the urban environment. Recalling how this place was different in the past means

that the research participants were not engaging solely with the urban environment as it currently exists, but also in relation to how it looked, smelt, and sounded in the past. Noting how Bedford and Milton Keynes are different from other places research participants could remember visiting invokes a series of comparisons and judgements that again mediates the immediate experiencing of those two towns. And asserting that Bedford and Milton Keynes are just the same as other town centres and shopping centres establishes them as 'types' rather than unique urban environments, once again allowing their immediate sensory impact to be reflected upon and, in this case, dulled. As Eizenberg (2010) argues, this ongoing remembering of other places and of previous visits to the same place *both* assimilates a person into the experienced place *and* constantly makes reference to other places elsewhere. It thus accounts for the paradoxical sensibility to, as well as ignoral of, the built environment articulated by our research participants. All this suggests that the turn away from Bergson and the insistence on the collective, cultural nature of memory in urban spaces may be premature, when perhaps what we are seeing in these case studies is the evidence of 'pure memory' emerging: "the virtual whole of the continuous prolongation of past experience into the present... continually limited by mental functions subordinated to the activity of the body" (Burton, 2008, p. 329).

In conclusion, we agree that work exploring the multisensory nature of designed urban environments is valuable for understanding

some of the key changes occurring to many towns and cities in the early twenty-first century. However, we would also argue that, given the importance of distinct modes of mobility and of perceptual memory to the mediation of that multisensoriality among the research participants in this project, such work needs to pay much more attention to these processes in its account of how urban environments are experienced.

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